

Natural Gas as a Climate Change Solution



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Why are Methane Emissions Important?



- Potent greenhouse gas - 21 times the radiative forcing relative to CO₂
- Atmospheric lifetime of ~12 years - therefore reductions have immediate impact
- Second largest source of greenhouse gas in terms of CO₂ equivalent ~16% of total
- The primary constituent of natural gas and therefore a valuable, clean-burning energy source

Worldwide Methane Emissions from the Oil and Gas Industry

Total World: ~ 3 Trillion Cubic Feet
 ~ 85 billion cubic meters

2005 Methane Emissions from Natural Gas and Oil Systems (MtCO₂e)

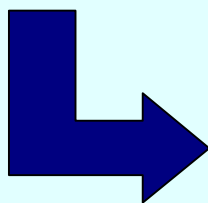
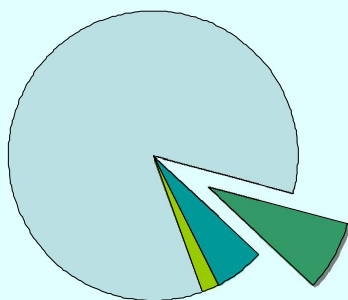
Russia	172.7
U.S.	144.6
Ukraine	90.8
Mexico	77.2
Nigeria	51.3
Canada	38.3
India	26.0
Argentina	15.1
U.K.	8.0

Germany	7.7
Australia	7.6
China	6.3
Italy	5.4
Korea	4.1
Brazil	3.7
Colombia	1.9
Ecuador	0.7
Japan	0.4

U.S. Oil and Gas Industry Methane Emissions

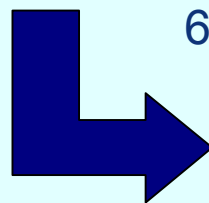
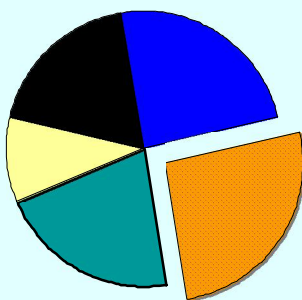
U.S. GHG Emissions

CH₄: 8%

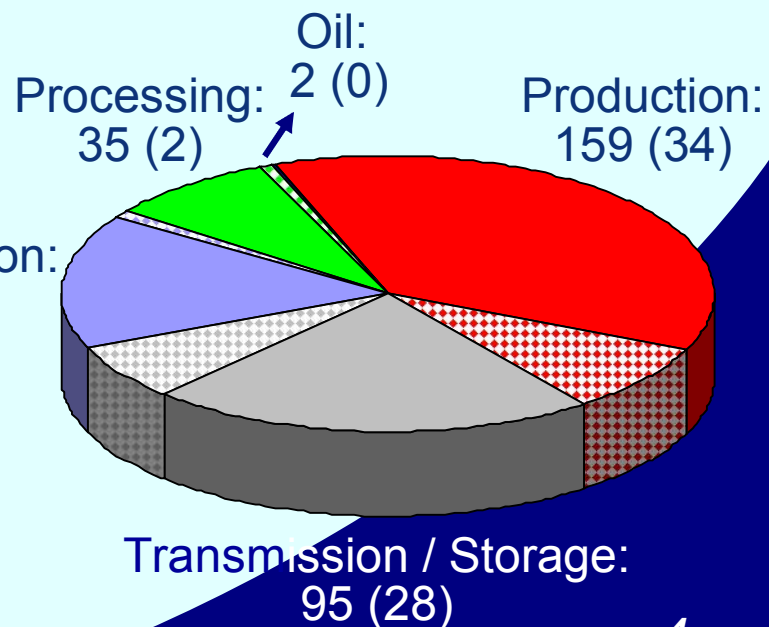


U.S. CH₄ Emissions

Oil & Gas: 27%



U.S. O&G CH₄
Emissions
Bcf (Bcf saved)



Methane, Climate Change and Voluntary Cost-effective Projects



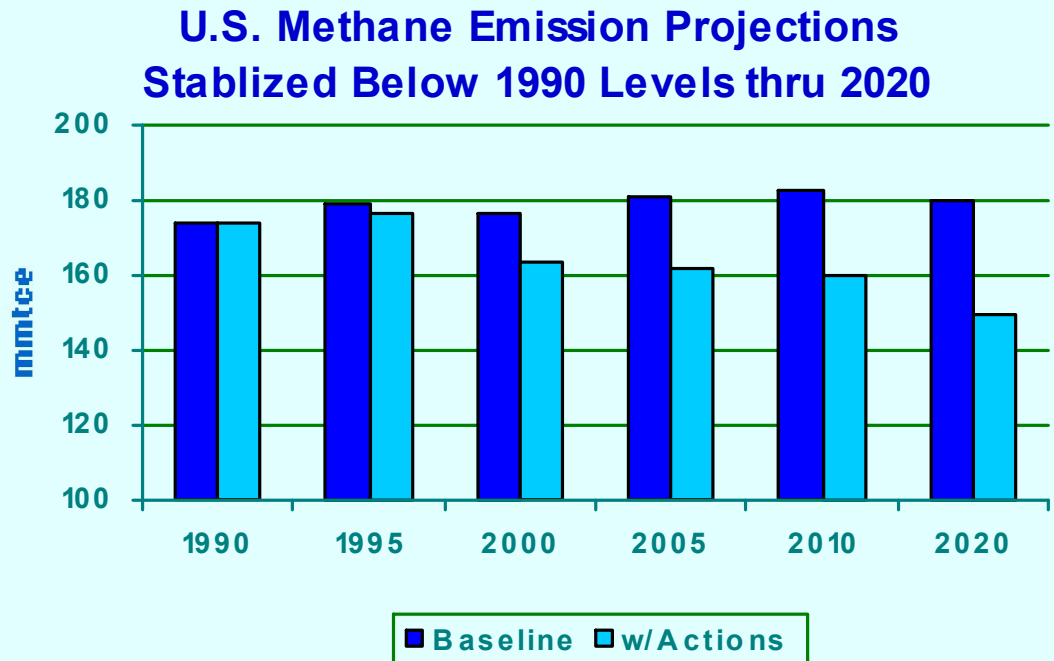
Why are projects not developed?

- Lack of awareness of:
 - Methane emission levels and value of lost fuel
 - Information on and training in new technologies and practices
- Traditional industry practices
- Regulatory and legal issues
- Limited methane markets and infrastructure
- Uncertain investment climate

Voluntary Actions to Reduce Methane Emissions



- U.S. oil and gas industry emits 6% less methane than it did in 1990!
- The successful model of implementing cost-effective methane emissions reduction projects and practices in many cases can be applied worldwide.





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Thank you!